**Oxford College of Engineering and Management**

**Assignment - I**

**Microprocessor**

BCA Second Year, Third Semester

1. What is mean by "Bus" in computer system? Explain bus organization of microprocessor based system with necessary diagram.
2. Define microprocessor and list out its relevant applications in this modern era.
3. Write a program using SAP I instruction to solve the below mentioned arithmetic problem:

(11+12+18-23)10

1. Describe the different registers of SAP-I structure with block diagram.
2. Explain the LDA routine (fetch and execute cycles) in SAP-I
3. Describe the architectural difference of SAP-II with SAP-I. Explain all the advancements in SAP-II.
4. Draw and explain the architecture of SAP-II.
5. Write an ALP in SAP-II to perform multiplication between 07H and 09H with flowchart.
6. Why SAP-II use bidirectional registers? Explain flag used in SAP-II with diagram.
7. Explain the interrupts available in 8085 microprocessor.
8. Explain the pin configuration of 8085 and explain the functional usage of each pin.
9. What do you mean by addressing mode? Explain its different types in 8085 MP.
10. Write short notes on : Flags available in 8085 microprocessor.
11. Write an ALP in 8085 that subtracts two numbers stored in memory 2080H and 2081 H then store the result in memory location 2082H.
12. Write an ALP in 8085 to add two 16-bit numbers 3254H and 5678H and store the result in appropriate register.

**Instructions:**

* Solve all the questions compulsorily in A4 size paper and make proper binding with cover page.
* Printed and photocopied assignment is not accepted.
* Assignment should be submitted before first term exam.